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The Shades of Truth Study Series - Visual Report

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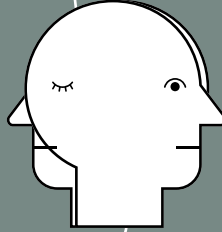
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the
shades of truth
study series

WhatsApp Research Awards for Social Science
and Misinformation

Preface

Online misinformation has become a central issue in the fight against COVID-19. This study series focuses on how we, social media users, interact with information that arrives on our screens in a changing tides of trust during a pandemic. We investigate how we (and scientifically accurate information) affect beliefs about misinformation. And discover factors that shape behaviour around users correcting each other on WhatsApp.

We hope that the findings of this report and our research will strengthen the efforts of health agencies and WhatsApp in designing interventions to manage the infodemic.

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The infodemic begins

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China's 1st novel coronavirus after a cluster of pneumonia cases from Wuhan in Hubei province

URLs that contain the word "virus" creates information that triggers a misperception about a leak on social media platforms including WhatsApp

~~MM@CNÆ?E?~~

World Health Organization
warns against "infectious
disease" before declaring COVID-19
a pandemic

Definition

[illegible]

Spectrum of information.

Impact of misinformation

~~CONFUSION~~

Public unsure about what information to believe or ignore

NON-VIOLENCE

Conspiracy theories lead to attacks on 5G towers

SỜ' GỖ' N

Discriminatory attacks on minority communities because of reference to COVID-19 as "Chinese Virus"



WEB initiates ACTION ~ Š



EXR	VR	N#	Platform
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Companies with social media to block information



Global pandemic management consultation



WhatsApp Tiplines

Factors affecting psychological responses to this information

Shades of truth

Previous research has shown that users' and audiences' response to messages could vary based on the level of detail, source and factual content.

But we understand little about the psychological response of WhatsApp users to misinformation that arrives in various hues or shades of truth.

Level of truth

- Completely false
- Partially false
- Full Truth

Corrective information

- Fact-checking
- Appeals to credibility
- Source of corrective information
- Warnings of possible presence of misinformation
- Alternative explanation
- Credibility of the misinformation itself
- Corrections with factual elaboration
- Social discrediting of misinformation source

Several interventions to combat online health misinformation have been tested and launched by academics, data literacy entrepreneurs and social media companies.

However, evidence shows that these interventions can have unintended consequences, such as increasing the visibility of misinformation or making it more credible.

Linkages between individual characteristics and health misinformation susceptibility

Individual characteristics

- possess a greater confidence in false memories
- demonstrate a tendency to forget the source of the original misinformation
- possess reduced cognitive functioning and abstract reasoning
- exhibit limited capabilities to differentiate between various 'Shades of truth'

Misinformation pollutes our memory. Of 784 in a study, 756 said they had not been effective at making our memory reliable.

Study Locations

UK and Brazil have reported the highest number of COVID-19 cases in Europe and South America respectively.

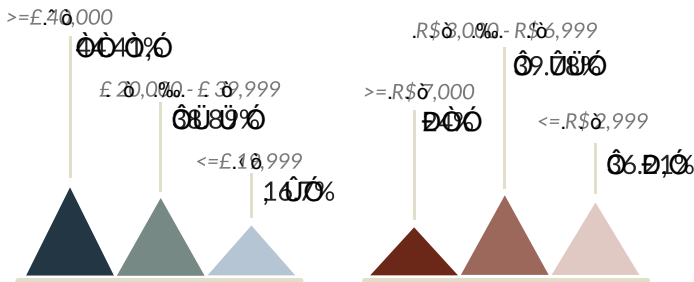
WhatsApp is among the most popular social media apps in both countries, however it is also a proven vector of misinformation.

Participant profile

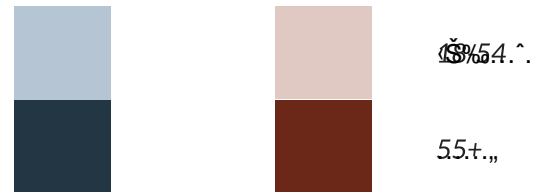
Ny: 725
UK

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Brazil

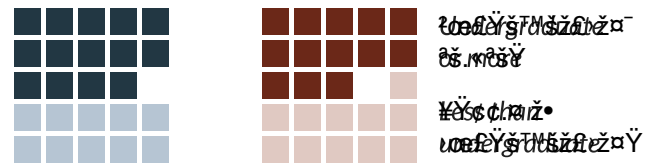
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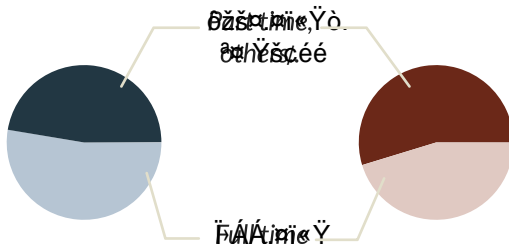
Age



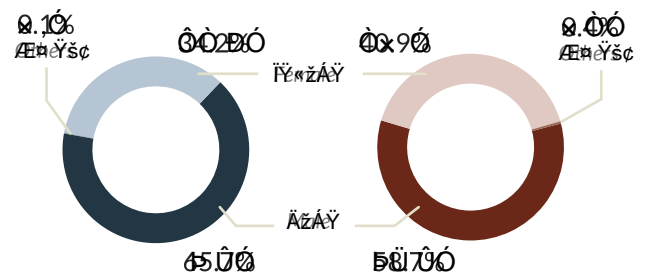
Education



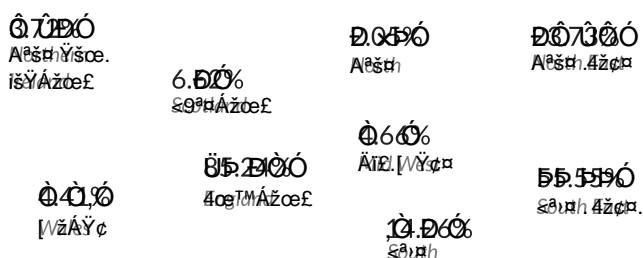
Employment



Gender



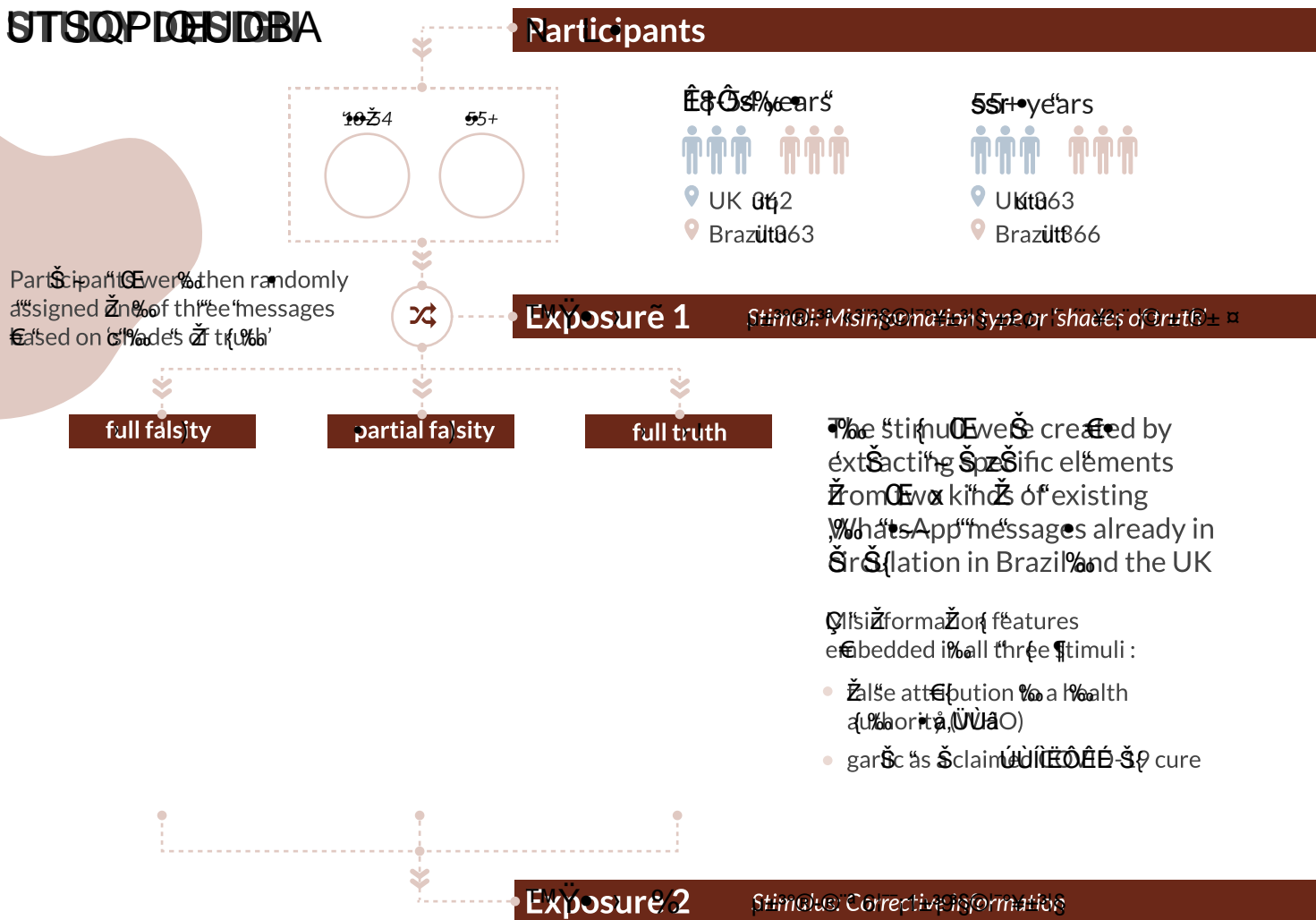
Geography



Participants in both UK and Brazil were recruited through Qualtrics' panel of survey respondents

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All participants were then presented with a corrective message in the form of a D-19 mRNA vaccine info sheet from WHO's EIUWIN online resource website

Main Outcomes: Misinformation Belief, Message Credibility, Intent to Share

Misinformation Belief

Message Credibility

Intent to Share

via a randomised survey experiment among WhatsApp users in UK and Brazil. Information: Randomised survey experiment among WhatsApp users in UK and Brazil. Information: Randomised survey experiment among WhatsApp users in UK and Brazil.

In addition to prior exposure, how do emotional and cognitive factors affect users' digital behaviours in relation to misinformation?

Predictors



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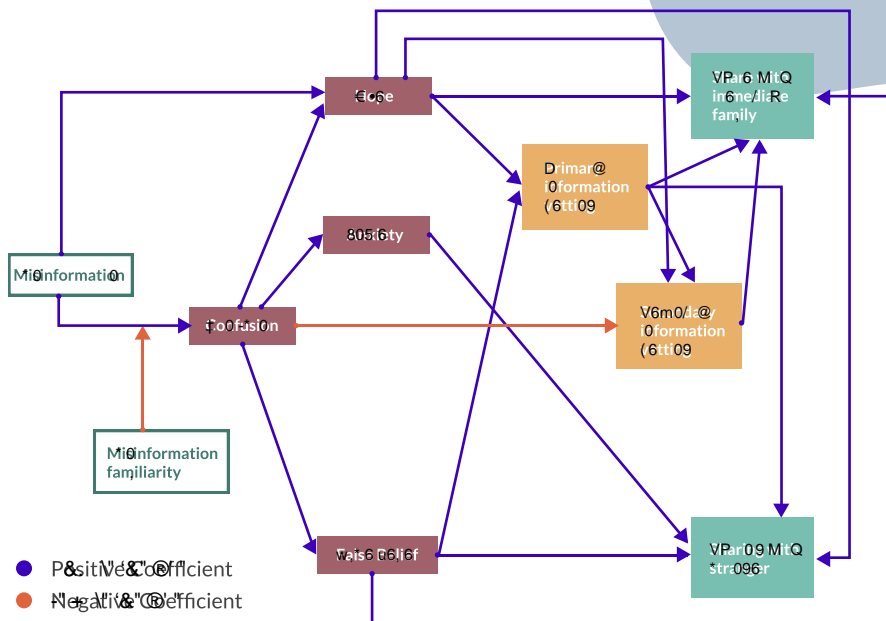
Main Outcomes

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Information Vetting and Sharing

CG?CHDE?



Conceptual model describing the effects of emotions on information vetting and sharing behaviors

Individuals' anxiety, misinformation belief might be aroused by their confusion.

Hope and misinformation belief predict users' intention to engage in primary information vetting.

Hope, confusion and primary information vetting might influence users' intention to engage in secondary information vetting.

Linkage between emotions and sharing behavior

Individuals with higher misinformation beliefs and anxiety are more likely to share the message with others



Anxiety functions as a trigger for people to share the information with strangers via social media



Confusion inhibits people from sharing the misinformation with their immediate family members via WhatsApp

Linkage between misinformation veracity and sharing behavior



Confusion and anxiety and hope and anxiety which in turn, could influence user behaviour and intention to engage in information vetting and sharing



Individuals may be motivated to take a two-stage vetting process. First, by assessing the information itself (primary vetting) and then by judging the overall assessments (secondary vetting)



Secondary vetting is a separate primary vetting process to make individuals more confident, which triggers their intentions to share (mis)information with immediate family

What types of social interaction behaviors do WhatsApp users engage in? What are the health, technological and demographic factors that affect these behaviors?

Cross-sectional study

Focuses on the role of and extent to which WhatsApp users demonstrate the tendency to correct their social peers who might deliberately or unwittingly share COVID-19 misinformation on this popular messaging platform

Independent variables



Demographic factors

- Age
- Gender
- Household income
- Education



Health beliefs

- Perceived efficacy to correct
- Perceived susceptibility to COVID-19



Misinformation factors

- Misinformation exposure
- Message credibility



Technological factors

- Information seeking norms
- Critical message evaluation
- Time spent discussing

Main findings

Active feedback to group

Active feedback to sender

Passive or no feedback

Social Correction Behaviour

INSIGHTS

Self-reported sexual activity of participants during participation in the online cognitive correction.

Individual attention was assigned to participants who privately asked back to the original screen.

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Overall session evaluation
primarily asked all the
participants the following

- Acted in a bad way back
- Acted in a good way back
- Rashed out back

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Participants had a
questionnaire (than
other participants) for
the group of pass/ot/nd/
feedback

Participants with
the highest percentage of
the total of the
percentage of the
percentage of the
percentage of the
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Male participants
asked (the questionnaire)
for the participants for
the group of act/ive/ot/up/
feedback



Of the participants
the data was found for all of
the participants

How effective are corrective information interventions when they are followed by misinformation?

STUDY DESIGN

Participants were recruited from the Spanish population, 18-24 years old, 50% male, 50% female, 50% high school, 50% university, 50% employed, 50% unemployed.

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95+ years old, N=100

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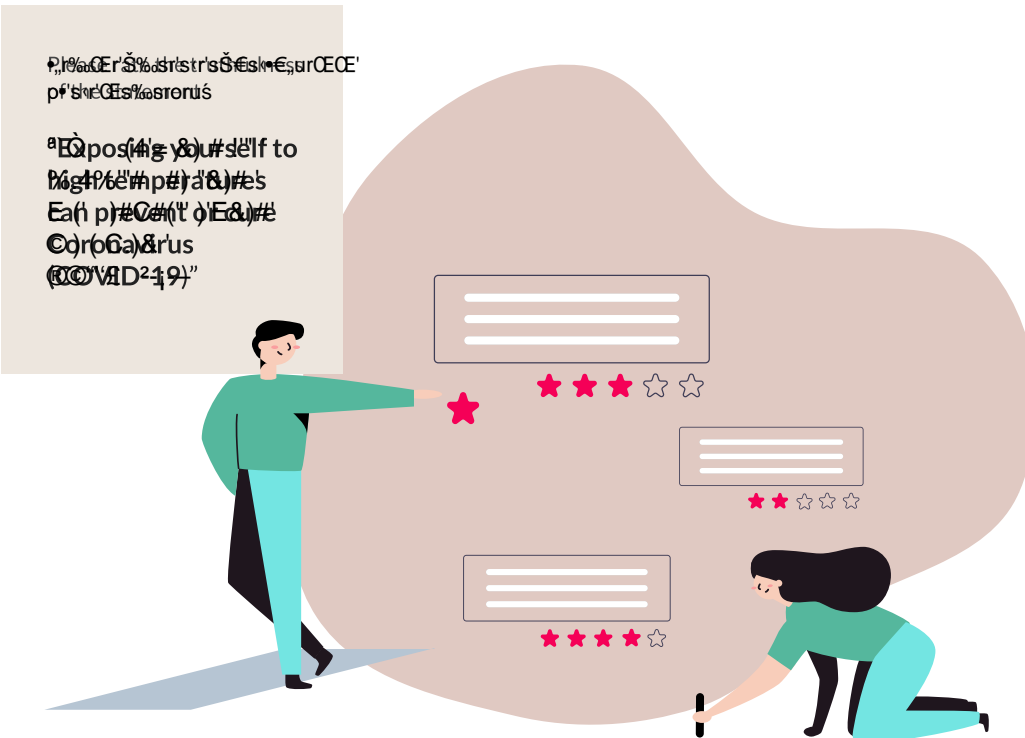
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Sample statement

Sample infographic

Sample WhatsApp message



Major Outcomes

Participants were recruited from the Spanish population, 18-24 years old, 50% male, 50% female, 50% high school, 50% university, 50% employed, 50% unemployed.

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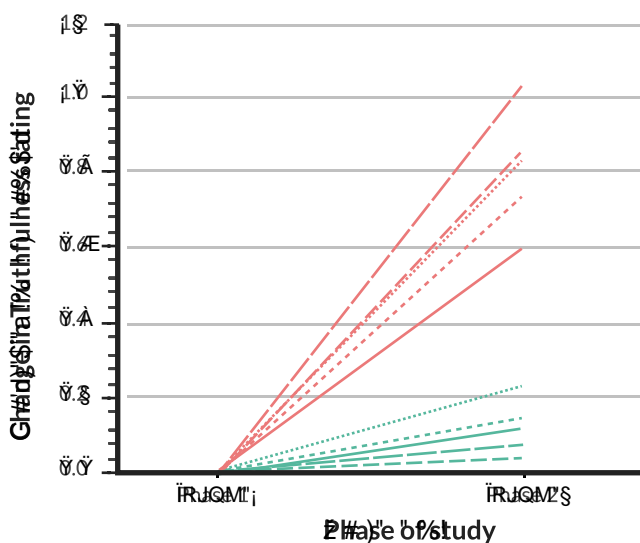
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Memory and Misinformation

INSIGHTS

Exposure to false information
impaired memory accuracy
of false (red) and truthful (green) information

Change in truthfulness ratings after exposure
to false (red) and truthful (green) information



Exposure to false information was highly related
to the likelihood of sharing
false information

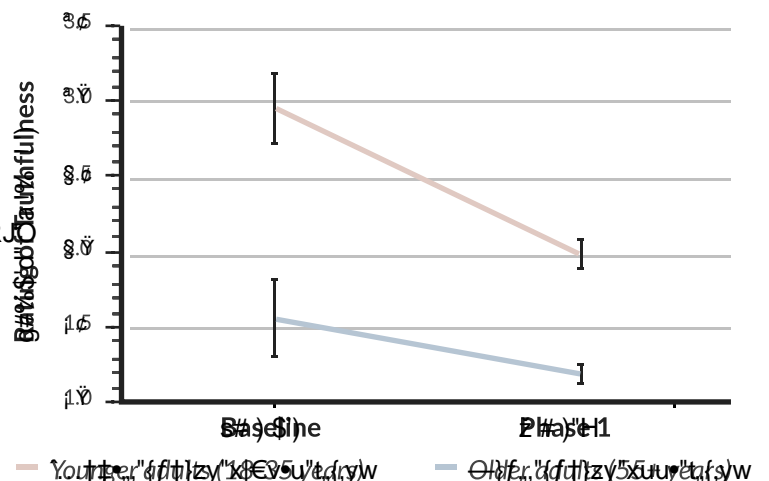
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to the likelihood of sharing
false information

Exposure to false information was highly related
to the likelihood of sharing
false information

Improvement in truthfulness ratings
response to corrective information



Implications

for Public Health Communication



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